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# Patent Abstracts of Japan

PUBLICATION NUMBER : 60121423  
PUBLICATION DATE : 28-06-85

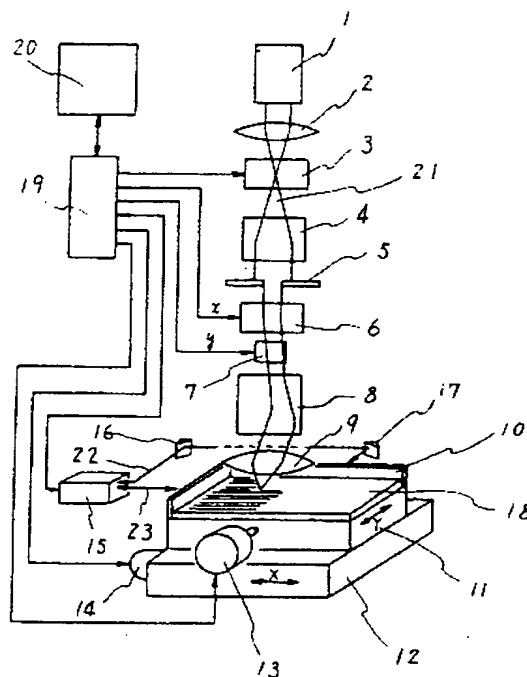
APPLICATION DATE : 31-10-84  
APPLICATION NUMBER : 59227733

APPLICANT : HITACHI LTD;

INVENTOR : TAKANASHI AKIHIRO;

INT.CL. : G02F 1/33 G02F 1/11

TITLE : LASER BEAM DEFLECTING DEVICE



ABSTRACT : PURPOSE: To deflect a laser beam in a large area in a high speed with a high precision by providing a relay lens, which expands the diameter of the laser beam, between an object lens and an acoustooptic deflector which can deflect the laser beam in one or two axial directions.

CONSTITUTION: A laser beam 21 outputted from a laser source 1 for forming a latent image or laser working is modulated by an optical modulator 3 and is converted to a parallel light by a condenser lens 4 again and passes an aperture 5 and is deflected in direction of (x) and (y) axed by (x) axis and (y) axis acoustooptic deflectors 6 and 7 respectively. After the laser beam passes deflectors 6 and 7, the deflection point of deflectors is projected to the center of an object lens 9 by a relay lens 8 to expand the diameter of the laser beam, and a minute spot is focused on the surface of a sample 18 by the object lens 9, and the laser beam is deflected in a minute range in a high speed with a high precision. The laser beam is deflected in a wide range completely by a biaxial high-speed and high-precision moving table provided with (x) axis and (y) axis moving motors 14 and 13.

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